WHAT IS CLAIMED IS:

1. A routing system comprising:

a switch configured to switch packets; and

a controller configured to control the switch and to

receive a packet from the switch using a protocol that

operates as if the switch were located in the controller.

2. The routing system of claim 1 wherein the switch is

arranged to append address information of the controller to

the packet for delivery to the controller.

3. The routing system of claim 1 wherein the controller

is arranged to strip address information associated with the

controller from the packet received from the switch.

4. The routing system of claim 1 wherein the switch has

interfaces, each interface corresponding to a virtual

interface in the controller.

5. The routing system of claim 4 wherein the packet

received by an interface of the switch is sent to the

corresponding virtual interface of the controller.

6.   The routing system of claim 1 comprising multiple switches and wherein the controller is configured to control the switches.

7.   The routing system of claim 1 further comprising a network medium between the switch and controller.

8.   The routing system of claim 7 wherein the network medium comprises Ethernet.

9.   The routing system of claim 1 wherein the controller comprises a networking stack for receiving and processing the packet.

10. A routing system comprising:

a switch configured to switch packets; and

a controller configured to control the switch and to transmit a packet through the switch using a protocol that operates as if the switch were located in the controller.

11. The routing system of claim 10 wherein the controller with the packet is arranged to append address information of the switch to the packet for delivery to the switch.

12. The routing system of claim 11 wherein the switch is arranged to strip the address information associated with the switch from the packet received from the controller.

13. The routing system of claim 10 wherein the switch has interfaces, each interface corresponding to a virtual interface in the controller.

14. The routing system of claim 13 wherein the packet from a virtual interface in the controller is sent to the corresponding interface of the switch.

15. The routing system of claim 10 comprising multiple switches and wherein the controller is configured to control the switches.

16. The routing system of claim 10 wherein the switch and the controller communicate through a network medium.

17. The routing system of claim 16 wherein the network medium comprises Ethernet.

18. The routing system of claim 10 wherein the controller comprises a networking stack for transmitting the packet.

19. A method of routing a packet comprising:

sending a packet to a first routing component;

encapsulating the packet with address information;

sending the encapsulated packet to a second routing

component based on the address information; and

unencapsulating the packet at the second component.

20. The method of claim 19 further comprising: sending

the packet up a networking stack to a networking application.

21. The method of claim 19 wherein the first component

comprises a switch and the second component comprises a

controller.

22. The method of claim 21 further comprising:

looking up a routing table to determine the address of

the controller before sending the packet to the controller.

23. The method of claim 19 wherein the first component

comprises a controller and the second component comprises a

switch.

24. The method of claim 23 further comprising:

looking up a routing table to determine the address of the switch before sending the packet to the switch.

25. An article comprising a computer-readable medium that stores computer-executable instructions for causing a computer system to:

send a packet to a first router component;

encapsulate the packet with address information;

send the encapsulated packet to a second router component based on the address information; and

unencapsulate the packet at the second component.

26. The article of claim 25 further causing the computer system to:

send the packet up a networking stack to a networking application.

27. The article of claim 25 wherein the first component comprise a switch and the second component comprises a controller.

28. The article of claim 27 further causing the computer system to:

look up a routing table to determine the address of the controller before sending the packet to the controller.

29. The article of claim 25 wherein the first component comprises a controller and the second component comprises a switch.

30. The article of claim 27 further causing the computer system to:

look up a routing table to determine the address of the switch before sending the packet to the switch.